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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for generating a table for enhancing [[the]] print quality of input raster pel data, comprising:

generating an output value for different patterns of pel data, wherein each output value indicates a sub-pulse width power to charge [[to]] a sub-pel region within a pel and position information indicating [[the]] a justification of the sub-pel region within the pel; and
forming a look-up table from the generated output values that enhances print quality.

2. (Original) The method of claim 1, wherein toner is attracted to the charged sub-pel region.

3. (Original) The method of claim 1, wherein one output value is generated for a subject pel depending upon the pattern of pels surrounding the subject pel, wherein there is one output value for each possible pattern of surrounding pels.

4. (Original) The method of claim 3, wherein the subject pel is at the center of the surrounding pels, and wherein the surrounding pels form a diamond shape.

5. (Original) The method of claim 1, wherein the position information is used to cluster sub-pel regions next to each other in adjacent pels and justify an edge pel toward a black filled region adjacent to the edge pel.

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6. (Currently Amended) The method of claim 1, wherein the output value for the sub-pulse width power is generated by adjusting a base sub-pulse width power by weights indicating [[the]] an affect effect of a subject black pel on surrounding pels.

7. (Currently Amended) The method of claim 6, wherein the output value is generated for the subject black pel affecting effecting the surrounding pels, wherein the surrounding pels comprise multiple regions of pels, wherin there is a separate weight for each region that is used to adjust the base sub-pulse width power of the subject black pel to produce the output value.

8. (Currently Amended) The method of claim 6, wherein, for each region, there is a black weight indicating the affect effect of the subject black pel on a black pel in the region and a white weight indicating the affect effect of the subject black pel on a white pel in the region, wherein adjusting the base sub-pulse width power for the subject black pel comprises, for each region:
adding the black weight to the sub-pulse width power for each black pel in the region; and
subtracting the white weight from the sub-pulse width power for each white pel in the region.

9. (Currently Amended) The method of claim 7, wherein the weights for each region are calculated by solving an equation that uses the weights for each region to adjust an input array comprising [[the]] a density at each greyscale level at the base sub-pulse width power to produce a target output array comprising desired density for each greyscale level.

10. (Currently Amended) The method of claim 9, wherein the adjustment of the input array using the weights is performed by adding a first function defining [[the]] a density of the pels in the regions for each greyscale level after adjusting the subject black pel with the weights, subtracting a second function defining [[the]] a density of the pels in the regions for each greyscale level with no weight affect effect, adding a third function defining [[the]] a density of

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the black subject pel for each greyscale level after adjusting the center pel with the weights, and subtracting a fourth function defining [[the]] a density of the black subject pel with no weight affect.

11. (Currently Amended) The method of claim 10, wherein the four functions defining the affect effect of the black subject pel in each region are based on a greyscale level corresponding to a percentage of the subject black pel that affects effects the region measured at different power levels.

12. (Currently Amended) The method of claim 11, wherein the affect effect of the subject black pel in each region further comprises:

using [[the]] a halftone algorithm to determine, for each region, black and white density arrays indicating a percentage of black and white pels, respectively, in the region for each greyscale level; and

for each region, multiplying the black and white density arrays and the results of the functions indicating the affect of the subject black pel on the region to determine the black and white density effects of the subject black pel on the region.

13. (Currently Amended) A system for generating a table for enhancing [[the]] print quality of input raster pel data, comprising:

means for generating an output value for different patterns of pel data, wherein each output value indicates a sub-pulse width power to charge [[to]] a sub-pel region within a pel and position information indicating [[the]] a justification of the sub-pel region within the pel; and

means for forming a look-up table from the generated output values that enhances print quality.

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14. (Original) The system of claim 13, wherein toner is attracted to the charged sub-pel region.

15. (Original) The system of claim 13, wherein one output value is generated for a subject pel depending upon the pattern of pels surrounding the subject pel, wherein there is one output value for each possible pattern of surrounding pels.

16. (Original) The system of claim 15, wherein the subject pel is at the center of the surrounding pels, and wherein the surrounding pels form a diamond shape.

17. (Original) The system of claim 13, wherein the position information is used to cluster sub-pel regions next to each other in adjacent pels and justify an edge pel toward a black filled region adjacent to the edge pel.

18. (Currently Amended) The system of claim 13, further comprising means for adjusting a base sub-pulse width power by weights indicating [(the)] an affect effect of a subject black pel on surrounding pels to generate the output value for the sub-pulse width power.

19. (Currently Amended) The system of claim 18, wherein the output value is generated for the subject black pel affecting effecting the surrounding pels, wherein the surrounding pels comprise multiple regions of pels, wherein there is a separate weight for each region that is used to adjust the base sub-pulse width power of the subject black pel to produce the output value.

20. (Currently Amended) The system of claim 18, wherein, for each region, there is a black weight indicating the affect effect of the subject black pel on a black pel in the region and a white weight indicating the affect effect of the subject black pel on a white pel in the region,

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wherein the means for adjusting the base sub-pulse width power for the subject black pel comprises, for each region:

means for adding the black weight to the sub-pulse width power for each black pel in the region; and

means for subtracting the white weight from the sub-pulse width power for each white pel in the region.

21. (Currently Amended) The system of claim 19, further comprising means for calculating the weights for each region by solving an equation that uses the weights for each region to adjust an input array comprising [[the]] a density at each gray scale level at the base sub-pulse width power to produce a target output array comprising desired density for each gray scale level.

22. (Currently Amended) The system of claim 21, wherein adjustment of the input array using the weights is performed by adding a first function defining [[the]] a density of the pels in the regions for each gray scale level after adjusting the subject black pel with the weights, subtracting a second function defining [[the]] a density of the pels in the regions for each gray scale level with no weight affect effect, adding a third function defining [[the]] a density of the black subject pel for each gray scale level after adjusting the center pel with the weights, and subtracting a fourth function defining [[the]] a density of the black subject pel with no weight affect.

23. (Currently Amended) The system of claim 22, wherein the four functions defining the affect effect of the black subject pel in each region are based on a gray scale level corresponding to a percentage of the subject black pel that affects effects the region measured at different power levels.

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24. (Currently Amended) The system of claim 23, wherein the affect effect of the subject black pel in each region is determined by:

means for using [[the]] a halftone algorithm to determine, for each region, black and white density arrays indicating a percentage of black and white pels, respectively, in the region for each gray scale level; and

means for multiplying, for each region, the black and white density arrays and the results of the functions indicating the affect effect of the subject black pel on the region to determine the black and white density effects of the subject black pel on the region.

25. (Currently Amended) An article of manufacture for use in generating a table for enhancing [[the]] print quality of input raster pel data, the article of manufacture comprising at least one computer program capable of causing a processor to perform:

generating an output value for different patterns of pel data, wherein each output value indicates a sub-pulse width power to charge a sub-pel region within a pel and position information indicating [[the]] a justification of the sub-pel region within the pel; and

forming a look-up table from the generated output values that enhances print quality.

26. (Original) The article of manufacture of claim 25, wherein toner is attracted to the charged sub-pel region.

27. (Original) The article of manufacture of claim 25, wherein one output value is generated for a subject pel depending upon the pattern of pels surrounding the subject pel, wherein there is one output value for each possible pattern of surrounding pels.

28. (Original) The article of manufacture of claim 27, wherein the subject pel is at the center of the surrounding pels, and wherein the surrounding pels form a diamond shape.

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29. (Original) The article of manufacture of claim 25, wherein the position information is used to cluster sub-pel regions next to each other in adjacent pels and justify an edge pel toward a black filled region adjacent to the edge pel.

30. (Currently Amended) The article of manufacture of claim 25, wherein the output value for the sub-pulse width power is generated by adjusting a base sub-pulse width power by weights indicating [[the]] an affect effect of a subject black pel on surrounding pels.

31. (Currently Amended) The article of manufacture of claim 30, wherein the output value is generated for the subject black pel ~~affecting~~ effecting the surrounding pels, wherein the surrounding pels comprise multiple regions of pels, wherein there is a separate weight for each region that is used to adjust the base sub-pulse width power of the subject black pel to produce the output value.

32. (Currently Amended) The article of manufacture of claim 30, wherein, for each region, there is a black weight indicating the affect effect of the subject black pel on a black pel in the region and a white weight indicating the affect effect of the subject black pel on a white pel in the region, wherein adjusting the base sub-pulse width power for the subject black pel comprises, for each region:

adding the black weight to the sub-pulse width power for each black pel in the region; and
subtracting the white weight from the sub-pulse width power for each white pel in the region.

33. (Currently Amended) The article of manufacture of claim 31, wherein the weights for each region are calculated by solving an equation that uses the weights for each region to adjust an input array comprising [[the]] a density at each gray scale level at the base sub-pulse width power to produce a target output array comprising desired density for each gray scale level.

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34. (Currently Amended) The article of manufacture of claim 33, wherein the adjustment of the input array using the weights is performed by adding a first function defining [[the]] a density of the pels in the regions for each gray scale level after adjusting the subject black pel with the weights, subtracting a second function defining [[the]] a density of the pels in the regions for each gray scale level with no weight affect effect, adding a third function defining [[the]] a density of the black subject pel for each gray scale level after adjusting the center pel with the weights, and subtracting a fourth function defining [[the]] a density of the black subject pel with no weight affect.

35. (Currently Amended) The article of manufacture of claim 34, wherein the four functions defining the affect effect of the black subject pel in each region are based on a gray scale level corresponding to a percentage of the subject black pel that affects effects the region measured at different power levels.

36. (Currently Amended) The article of manufacture of claim 35, wherein the affect effect of the subject black pel in each region further comprises:

using [[the]] a halftone algorithm to determine, for each region, black and white density arrays indicating a percentage of black and white pels, respectively, in the region for each gray scale level; and

for each region, multiplying the black and white density arrays and the results of the functions indicating the affect of the subject black pel on the region to determine the black and white density effects of the subject black pel on the region.

37. (Currently Amended) A computer-readable transmission medium including at least one look-up table data structure used for enhancing the print quality of input raster pel data, comprising:

an output value for different patterns of pel data, wherein each output value includes:

(i) a sub-pulse width power to charge [[to]] a sub-pel region within a pel, and

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(ii) position information indicating [[the]] a justification of the sub-pel region within the pel.

38. (Currently Amended) The computer-readable transmission medium of claim 37, wherein the look-up table data structure includes one output value for a subject pel depending upon the pattern of pels surrounding the subject pel, wherein there is one output value for each possible pattern of surrounding pels.

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38. (Original) The computer-readable transmission medium of claim 37, wherin the position information is used to cluster sub-pel regions next to each other in adjacent pels and justify an edge pel toward a black filled region adjacent to the edge pel.

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39. (Previously Presented) The computer-readable transmission medium of claim 37, wherein the position information is used to cluster sub-pel regions next to each other in adjacent pels and justify an edge pel toward a black filled region adjacent to the edge pel.